ELSEVIER

Wear 181–183 (1995) 945–946

WEAR

# Author Index of Volumes 181–183

Abdel-Aal, H.A., 723
Adams, M.J., 759
Agnew, S., 805
Albrecht, T., 426
Allen, C., 63
Alpas, A.T., 302
Anamalay, R.V., 717, 771
Anderegg, J.W., 227
Azarian, M.H., 743

Bahadur, S., 178, 212, 227
Ball, A., 379
Barbour, P.S.M., 250
Barton, D.C., 250
Bastias, P.C., 524
Beckmann, G., 862, 868
Bednar, M.S., 922
Beerschwinger, U., 426
Bellow, D.G., 42
Berns, H., 271
Bhattacharyya, D., 883
Bhushan, B., 360, 743
Biswas, S.K., 648, 658
Blanpain, B., 86
Blau, P.J., 405
Blum, F.D., 913
Bogdanow, Ch., 118
Bogy, D.B., 777
Briscoe, B.J., 759
Broszeit, E., 862, 868
Brummitt, K., 258
Bryant, M.D., 668
Budinsky, K.G., 938
Burstein, G.T., 70
Byeli, A.V., 632

Caravia, L., 236
Cardou, A., 537
Carry, C., 165
Celis, J.P., 86, 856
Chang, S.C., 511
Chen, C.K., 189
Chen, H.C., 511
Chen, Z., 263
Chung, P.C.K., 511
Clayton, P., 11
Clough, S., 112
Corkhill, P.H., 236
Cramer, S.D., 469, 476

Dang Van, K., 101
Danyluk, S., 784
Davies, M., 603
Daviot, J., 826
Dawson, D.B., 458
De Bruyn, K., 856
Derbyshire, B., 258
De Rooij, M.B., 638
Dharani, L.R., 913
Dijkman, J.A., 1
Doğan, C.P., 129
Doğan, Ö.N., 342
Dong, Q., 613
Dong, W.P., 700
Dong, X., 821
Dowson, D., 236, 258, 603
Dumbleton, J.H., 241
DuPont, J.N., 810
Durand, J.M., 833

Eiss, N.S., 94
Engel, P.A., 730
Evans, C.J., 551

Fan, A., 876
Fernandez, J.E., 417
Fischer, T.E., 165
Fiset, M., 537
Fisher, J., 236, 250, 258
Foulquier, J., 101
Franklin, S.E., 1
Friedersdorf, F.J., 476
Friedrich, K., 613, 624
Furey, M.J., 138, 581

Gao, X., 371
Garbar, I.I., 50
Gellrich, R., 862, 868
Gibson, E.D., 263
Giraud, B., 826
Glaeser, W.A., 889
Gong, D., 227
Gopal, P., 913
Goudreau, S., 537
Greim, J., 148
Gruffel, P., 165
Gu, Z., 413
Guo, S.Y., 194
Gupta, B.K., 743

Habig, K.-H., 571
Häger, A.M., 613
Hah, S.R., 165
Hahn, G.T., 524
Hakala, T., 840
Hardaker, C.S., 258
Hawk, J.A., 129, 342
He, C., 156
He, J.L., 189
Henning, C., 790
Hockey, B.J., 156
Hon, M.H., 189
Honda, T., 594
Hong, H., 485
Howard, P., 112
Howell, G.J., 379
Hsu, S.M., 156
Hughes, D.A., 458
Hutchings, I.M., 56, 70

Iwai, Y., 594
Iyer, K., 524

Jahanmir, S., 821
Jeandin, M., 833
Jiang, J., 20, 371
Jiang, Z., 777
Journet, B., 101
Julian, K.S., 759

Kailas, S.V., 648
Kajdas, C., 138, 581
Kang, C., 94
Kirk, T.B., 717, 771
Kirpichenko, Yu.E., 691
Knoch, H., 148
Koinkar, V.N., 360
Konchits, V.V., 691
Kong, H., 325
Korellis, J.S., 458
Kuhlmann-Wilsdorf, D., 922
Kukareko, V.A., 632
Kung, D., 80
Kunz, A., 862, 868
Kwon, O.K., 325

Lacey, P.I., 156
Laird II, G., 342
Lane, C., 883
Lee, K.S., 901
Le Huu, T., 766
Levin, B.F., 810
Li, J., 194
Li, Y., 70
Lian, Y., 436
Lim, C.Y.H., 901
Lim, S.C., 901
Lin, J.T., 883
Lin, J.-W., 668
Lin, S.J., 511
Liu, J., 413
Liu, P., 263
Lobodaeva, O.V., 632
Long, L., 876
Lu, C.-J., 777
Lu, Z.P., 624
Ludema, K.C., 443

Ma, Y., 413
Madsen, B.W., 469, 476
Magnée, A., 500
Mao, Z.Y., 194
Maouche, N., 101
Marder, A.R., 810
Markov, D., 678
Markova, L.V., 691
Mathieson, D., 426
McNallan, M., 784
McNicol, A., 603
Meier zu Köcker, G., 350
Meng, H.C., 443
Mewes, D., 790
Miettinen, J., 897
Miyamoto, T., 777
Molinari, A., 334
Mou, J., 194
Murthy, K.S.S., 658
Myshkin, N.H., 691

Narayan, M., 563
Nitta, I., 844

Ostgaard, J.T., 889
Ouwerkerk, H., 391

Pan, L., 799
Panzera, D., 717, 771
Paulmier, D., 687, 766, 799
Perrin, C., 312
Petiot, C., 101
Pickles, M.J., 759
Pleskachevsky, Yu.M., 222, 495
Polycarpou, A.A., 32
Pramila Bai, B.N., 544, 563, 658

Rack, H.J., 202
Rainforth, W.M., 312
Rao, A.S., 80
Rapoport, L., 280
Ravikiran, A., 544
Reuben, R.L., 426
Richman, R.H., 80
Riga, A.T., 485
Rigney, D.A., 290

Elsevier Science S.A.

Riitahuhta, A., 840
Rincón, A., 417
Robert, F., 687, 799
Rodriguez, R., 417
Roos, J.R., 856
Rubin, C.A., 524
Ruff, A.W., 551

Sannino, A.P., 202
Santner, E., 350
Savkoor, A.R., 391
Schipper, D.J., 638
Schneider, J., 118
Schouller, E., 687
Schouterden, K., 86
Schwetz, K.A., 148
Scott, C.G., 485
Scott, W., 850
Seif, M.A., 723
Shaffer, S.J., 889
Sheng, F., 371
Shin, H., 551
Shykh, S.K., 632
Siekkinen, V., 897
Sigl, L.S., 148
Simpson, Jr., W.A., 405
Singh, J., 302
Skopp, A., 571
Smirnov, V.V., 222
Smith, J.C., 581
Somi Reddy, A., 658
Song, Q., 613
Song-Roehrle, Q., 516
Soom, A., 32
Stack, M.M., 20, 516
Stals, L.M., 856
Stark, C., 241
Stevenson, A.N.J., 56
StJohn, D., 112
Stott, F.H., 20, 516
Stout, K.J., 700
Straffelini, G., 334
Sun, D.C., 241
Suntiwattana, P., 850
Surappa, M.K., 563

Taghizadeh, M., 426
Tao, Z., 876
Tighe, B.J., 236
Torrance, A.A., 397
Tripathy, B.S., 138

Vande Voort, J., 212
Vannes, A.B., 826
Van Stappen, M., 856
Vardavoulias, M., 833
Verhoeven, J.D., 263
Vijande, R., 417
Vincent, L., 101, 531, 826
Vingsbo, O., 86
Visscher, H., 638
Viswanath, N., 42
Voisin, J.M., 826
Vroegop, P.H., 638

Wang, A., 241
Wang, J.-P., 668
Wang, X.J., 290
Wang, Y., 417
Wang, Y.S., 156
Watson, S.W., 469, 476
Weingarten, L.I., 458
Weng, W.H., 511
Wentzel, E.J., 63
Westerfield, C., 805
Wood, G.C., 516
Woydt, M., 571
Wu, Y., 413

Xu, L., 112
Xu, Z.L., 717
Xue, Q., 436

Yang, Q., 730
Yang, S.J., 426
Yao, M., 371
Yoneda, H., 594
Yoon, E.-S., 325
Yu, L., 436

Zaïdi, H., 766, 799
Zaitsev, A.L., 222, 495
Zanoria, E., 784
Zaïdi, H., 687
Zhang, R., 613
Zheng, L., 413
Zhou, J., 178
Zhou, Z.R., 531, 537
Zum Gahr, K.-H., 118

ELSEVIER

Wear 181–183 (1995) 947–956

WEAR

# Subject Index of Volumes 181–183

Abrasion
fretting of polyimide coatings Part I: Structure and moisture effects, 94
applications of scanning acoustic microscopy in analyzing wear and single-point abrasion damage, 405
the role of strain rate response in plane strain abrasion of metals, 648
abrasion resistance of transport roll surfaces, 938
Abrasion resistance
abrasion resistance of the columnar zone in high Cr white cast irons, 342
Abrasive wear
laboratory assessment of the effect of white layers on wear resistance for digger teeth, 112
effect of grain boundary glass composition and devitrification on the abrasive wear of $Al_2O_3$, 129
wear of boron carbide ceramics by abrasive waterjets, 148
methods of measuring wear–corrosion synergism, 476
Acoustic emission
acoustic emission in monitoring sliding contact behaviour, 897
Adhesion
erosion of surface coatings in hydrodynamic flows, 759
Al 2024–$Al_2O_3$ composites
dry sliding wear of Al alloy 2024–$Al_2O_3$ particle metal matrix composites, 563
$Al_2O_3$
effect of grain boundary glass composition and devitrification on the abrasive wear of $Al_2O_3$, 129
sliding wear of a plasma-sprayed $Al_2O_3$ coating, 417
Alloy formation
amorphous and alloy film formation in sliding of silver on copper, 922
Alloys
microstructural properties of wear-resistant alloys, 271
mechanism of seizure of aluminium–silicon alloys dry sliding against steel, 658
Alumina
friction and wear reduction of $Al_2O_3$ ceramics by laser-induced surface alloying, 118
mechanism of wear reduction of alumina by tribopolymerization, 138
wear transitions in monolithic alumina and zirconia–alumina composites, 156
effect of grain boundary dopants and mean grain size on tribomechanical behavior of highly purified $\alpha$-alumina in the mild wear regime, 165
erosion characteristics of alumina ceramics at high temperatures, 178
Aluminium
influence of environmental composition and electrochemical potential on the slurry erosion–corrosion of aluminium, 70
single wire fretting fatigue tests for electrical conductor bending fatigue evaluation, 537
mechanism of seizure of aluminium–silicon alloys dry sliding against steel, 658
Aluminium alloys
dry sliding wear of particulate-reinforced aluminium alloys against automobile friction materials, 379
Aluminium matrix composites
dry sliding wear of Al alloy 2024–$Al_2O_3$ particle metal matrix composites, 563
Amorphization
microstructural variations and tribology of molybdenum-type high speed steel ion implanted with high current density nitrogen beams, 632
Anti-galling
tribological analysis and anti-galling design of ocean-floor pile reformation tool, 889
Asperities
measurements of real contact areas using PET films (thickness, 0.9 $\mu$m), 844
$AT_{30}Z$ ceramics
erosion behavior and evaluation of erosion resistant $AT_{30}Z$, 194
Atomic force microscopy
microtribology of metal particle, barium ferrite and metal evaporated magnetic tapes, 360
Automobile friction materials
dry sliding wear of particulate-reinforced aluminium alloys against automobile friction materials, 379

Babbitt
sliding behavior of Pb–Sn alloys, 290
Bearing materials
sliding behavior of Pb–Sn alloys, 290
Binder composition
erosion–corrosion resistance of tungsten carbide hard metals with different binder compositions, 63
Boron carbide
wear of boron carbide ceramics by abrasive waterjets, 148
Boundary and mixed friction
application of a two-dimensional model of continuous sliding friction to stick–slip, 32
Braking
dry sliding wear of particulate-reinforced aluminium alloys against automobile friction materials, 379
tribological transitions due to heat dissipation during braking on contaminated rails, 391
Brushes
thermal mounding in high speed dry sliders: experiment, theory and comparison, 668

Carbides
inorganic tribosynthesis of solid lubricants under frictional interaction of refractory metals carbides and chalcogens, 495
Carbon fibers
studies of worn surfaces and the transfer film formed in

sliding by CuS-filled and carbon fiber-reinforced nylon against a steel surface, 227
load, speed and temperature sensitivities of a carbon-fiber-reinforced phenolic friction material, 913
Cast iron
abrasion resistance of the columnar zone in high Cr white cast irons, 342
generalized law of erosion: application to various alloys and intermetallics, 500
Cavitation
cavitation erosion of NiTi explosively welded to steel, 80
the cavitation erosion of Fe–Mn–Al alloys, 511
Ceramic particles
role of reinforcing ceramic particles in the wear behaviour of polymer-based model composites, 833
Ceramics
friction and wear reduction of $Al_2O_3$ ceramics by laser-induced surface alloying, 118
wear of boron carbide ceramics by abrasive waterjets, 148
wear transitions in monolithic alumina and zirconia–alumina composites, 156
erosion characteristics of alumina ceramics at high temperatures, 178
damage processes in ceramics resulting from diamond tool indentation and scratching in various environments, 551
an exploratory study of vapor-phase lubrication of ceramics by monomers, 581
wear mechanism of a dental glass–ceramic, 821
Ceramics composites
tribological behavior of silicon nitride materials under unlubricated sliding between 22 °C and 1000 °C, 571
Cerium dioxide
the effect of cerium dioxide on the friction and wear properties of flame spraying nickel-based alloy coating, 436
Chalcogens
inorganic tribosynthesis of solid lubricants under frictional interaction of refractory metals carbides and chalcogens, 495
Chromium carbides
abrasion resistance of the columnar zone in high Cr white cast irons, 342
wear–corrosion study of white cast irons, 469
Clutch
effect of oil additives on the performance of a wet friction clutch material, 850
Coatings
the implementation of tribological principles in an expert-system ("PRECEPT") for the selection of metallic materials, surface treatments and coatings in engineering design, 1
sliding wear of a plasma-sprayed $Al_2O_3$ coating, 417
wear at microscopic scales and light loads for MEMS applications, 426
the effect of cerium dioxide on the friction and wear properties of flame spraying nickel-based alloy coating, 436
fretting behaviour and porosity of $Ti_2N$ coatings, 856
Cohesion
erosion of surface coatings in hydrodynamic flows, 759
Compaction stress
effects of length, diameter and population density of tribological rolls on friction between self-mated silicon, 784
Competitive wear mechanisms
the competing wear mechanisms and wear maps for steels, 280
Composite hardness
impact wear of multiplated electrical contacts, 730
Composites
surface topography evolution during sliding wear of 2009 Al–$SiC_p$/17-4 PH, 202
sliding wear behavior and microstructure change of deformation-processed Cu–20vol.%Nb in situ composite, 263
sliding wear behavior of SiC whisker-reinforced aluminum composite, 594
study on tribological behaviour of plasma-treated PEEK and its composites, 613
role of reinforcing ceramic particles in the wear behaviour of polymer-based model composites, 833
load, speed and temperature sensitivities of a carbon-fiber-reinforced phenolic friction material, 913
Computer analysis
computer image analysis of wear debris for machine condition monitoring and fault diagnosis, 717
Computer simulation
computer simulation of erosion–corrosion interactions at elevated temperatures, 516
Condition monitoring
acoustic emission in monitoring sliding contact behaviour, 897
Contact
the implementation of tribological principles in an expert-system ("PRECEPT") for the selection of metallic materials, surface treatments and coatings in engineering design, 1
Contact area
measurements of real contact areas using PET films (thickness, 0.9 $\mu$m), 844
Contact elements
wear of contact elements in electromechanical switches, 691
Contact force
impact wear of multiplated electrical contacts, 730
Contact pressure
analysis of fretting conditions in pinned connections, 524
Contact recording
nanoindentation, microscratch, friction and wear studies of coatings for contact recording applications, 743
Contact stress
the influence of contact stress on the wear of UHMWPE for total replacement hip prostheses, 250
Copper
amorphous and alloy film formation in sliding of silver on copper, 922
Corrosion
erosion–corrosion resistance of tungsten carbide hard metals with different binder compositions, 63
influence of environmental composition and electrochemical potential on the slurry erosion–corrosion of aluminium, 70
the erosion–corrosion of nickel-base diesel engine exhaust valves, 485
computer simulation of erosion–corrosion interactions at elevated temperatures, 516
Corrosion–erosion
methods of measuring wear–corrosion synergism, 476
Corrosive wear
failure analysis of the impeller of a slurry pump subjected to corrosive wear, 876
Countersurface roughness
development of an equation for the wear of polymers, 42
Crack nucleation
an analysis of fretting-fatigue failure combined with numerical calculations to predict crack nucleation, 101
mixed fretting regime, 531
Crystalline materials
measuring the deformation of crystalline materials due to the impact of eroding particles, 790

CuS
studies of worn surfaces and the transfer film formed in sliding by CuS-filled and carbon fiber-reinforced nylon against a steel surface, 227
Cutting
wear of boron carbide ceramics by abrasive waterjets, 148
Cutting wear
wear of Ti–Si–N coated ceramic cutting inserts, 189

Damage
analysis of a tube–grid oscillatory contact: methodology for the selection of superficial treatments, 826
Deformation
the effect of alumina fibre reinforcement on the wear of an Al–4.3%Cu alloy, 312
temperature fields in sliding contact by a hybrid laser speckle-strain analysis technique, 723
measuring the deformation of crystalline materials due to the impact of eroding particles, 790
Deformation layer
sliding wear behavior and microstructure change of deformation-processed Cu–20vol.%Nb in situ composite, 263
Dental materials
wear mechanism of a dental glass–ceramic, 821
Devitrification
effect of grain boundary glass composition and devitrification on the abrasive wear of $Al_2O_3$, 129
Diamond
damage processes in ceramics resulting from diamond tool indentation and scratching in various environments, 551
Diamond-like coatings
lubricating properties of diamond-like coating, 766
Diesel engines
the erosion–corrosion of nickel-base diesel engine exhaust valves, 485
Digger teeth
laboratory assessment of the effect of white layers on wear resistance for digger teeth, 112
Dimensional analysis
development of an equation for the wear of polymers, 42
Disc profile
observations on the role of the steel disc counterface during the sliding of various structural ceramics, 544
Disc wear
observations on the role of the steel disc counterface during the sliding of various structural ceramics, 544
Dry sliding
mechanism of seizure of aluminium–silicon alloys dry sliding against steel, 658
Dynamical analysis
dynamical analysis of the wear behaviour of steels during the pendulum single particle gouging wear tests, 371
Dynamic friction modeling
application of a two-dimensional model of continuous sliding friction to stick–slip, 32

Elastic and plastic contacts
the competing wear mechanisms and wear maps for steels, 280
Elastohydrodynamic lubrication
theoretical and practical aspects of the wear of vane pumps. Part A. Adaptation of a model for predictive wear calculation, 862
Electrical conductors
single wire fretting fatigue tests for electrical conductor bending fatigue evaluation, 537
Electrical fields
the effect of humidity and electrical fields upon the wear of high density polyethylene and polytetrafluoroethylene, 603
Electrochemical potential
influence of environmental composition and electrochemical potential on the slurry erosion–corrosion of aluminium, 70
Erosion
scaling laws for particle velocity in the gas-blast erosion test, 56
erosion–corrosion resistance of tungsten carbide hard metals with different binder compositions, 63
influence of environmental composition and electrochemical potential on the slurry erosion–corrosion of aluminium, 70
cavitation erosion of NiTi explosively welded to steel, 80
wear of boron carbide ceramics by abrasive waterjets, 148
erosion characteristics of alumina ceramics at high temperatures, 178
the erosion–corrosion of nickel-base diesel engine exhaust valves, 485
generalized law of erosion: application to various alloys and intermetallics, 500
computer simulation of erosion–corrosion interactions at elevated temperatures, 516
erosion of surface coatings in hydrodynamic flows, 759
measuring the deformation of crystalline materials due to the impact of eroding particles, 790
Erosion resistance
erosion behavior and evaluation of erosion resistant $AT_{30}Z$, 194
Exhaust valves
the erosion–corrosion of nickel-base diesel engine exhaust valves, 485
Expert system
the implementation of tribological principles in an expert-system ("PRECEPT") for the selection of metallic materials, surface treatments and coatings in engineering design, 1
Explosive welding
cavitation erosion of NiTi explosively welded to steel, 80

Failure
failure analysis of the impeller of a slurry pump subjected to corrosive wear, 876
Fatigue
an analysis of fretting-fatigue failure combined with numerical calculations to predict crack nucleation, 101
Fault diagnosis
computer image analysis of wear debris for machine condition monitoring and fault diagnosis, 717
Fe–Mn–Al alloys
the cavitation erosion of Fe–Mn–Al alloys, 511
Filled polymers
the growth and bonding of transfer film and the role of CuS and PTFE in the tribological behavior of PEEK, 212
studies of worn surfaces and the transfer film formed in sliding by CuS-filled and carbon fiber-reinforced nylon against a steel surface, 227
Film formation
amorphous and alloy film formation in sliding of silver on copper, 922
Flame spraying nickel-based alloy
the effect of cerium dioxide on the friction and wear properties of flame spraying nickel-based alloy coating, 436
Flank wear
the effects of machining conditions on the flank wear of TiN-coated high speed steel tool inserts, 901
Fragmentation
structure-based selection of wear-resistant materials, 50

Fretting
fretting of titanium nitride and diamond-like carbon coatings at high frequencies and low amplitude, 86
an analysis of fretting-fatigue failure combined with numerical calculations to predict crack nucleation, 101
analysis of fretting conditions in pinned connections, 524
mixed fretting regime, 531
analysis of a tube–grid oscillatory contact: methodology for the selection of superficial treatments, 826
fretting behaviour and porosity of $Ti_2N$ coatings, 856
Fretting fatigue
single wire fretting fatigue tests for electrical conductor bending fatigue evaluation, 537
Fretting wear
fretting of polyimide coatings. Part I: Structure and moisture effects, 94
Friction
effect of grain boundary dopants and mean grain size on tribomechanical behavior of highly purified $\alpha$-alumina in the mild wear regime, 165
the growth and bonding of transfer film and the role of CuS and PTFE in the tribological behavior of PEEK, 212
the effect of cerium dioxide on the friction and wear properties of flame spraying nickel-based alloy coating, 436
influence of a magnetic field on the wear and friction behaviour of a nickel/XC 48 steel couple, 799
Frictional contact
a microstructurally based method for stress estimates, 458
Friction and wear
lubricating mechanism of sulfurized olefin on Ni–P brush plating layer, 413
Friction force microscopy
microtribology of metal particle, barium ferrite and metal evaporated magnetic tapes, 360
Friction material
load, speed and temperature sensitivities of a carbon-fiber-reinforced phenolic friction material, 913
Friction prediction
using profilometry for the quantitative assessment of tribological function: PC-based software for friction and wear prediction, 397
Friction reduction
friction and wear reduction of $Al_2O_3$ ceramics by laser-induced surface alloying, 118
FTIRM surface analysis
an exploratory study of vapor-phase lubrication of ceramics by monomers, 581

Gas-blast erosion test
scaling laws for particle velocity in the gas-blast erosion test, 56
Glass
effect of grain boundary glass composition and devitrification on the abrasive wear of $Al_2O_3$, 129
wear mechanism of a dental glass–ceramic, 821
Grain boundaries
effect of grain boundary glass composition and devitrification on the abrasive wear of $Al_2O_3$, 129
the cavitation erosion of Fe–Mn–Al alloys, 511
Grain boundary phases
effect of grain boundary dopants and mean grain size on tribomechanical behavior of highly purified $\alpha$-alumina in the mild wear regime, 165
Grain size
wear transitions in monolithic alumina and zirconia–alumina composites, 156
effect of grain boundary dopants and mean grain size on tribomechanical behavior of highly purified $\alpha$-alumina in the mild wear regime, 165
Graphite
combined influence of an inert gas environment and a mechanical action on a graphite surface, 687

Hard coatings
fretting of titanium nitride and diamond-like carbon coatings at high frequencies and low amplitude, 86
Hardcor
wear of UHMWPE sliding against untreated, titanium nitride-coated and 'Hardcor'-treated stainless steel counterfaces, 258
Hard metals
erosion–corrosion resistance of tungsten carbide hard metals with different binder compositions, 63
wear of boron carbide ceramics by abrasive waterjets, 148
Hardness
effect of grain boundary dopants and mean grain size on tribomechanical behavior of highly purified $\alpha$-alumina in the mild wear regime, 165
laboratory tests for wear of rail and wheel steels, 678
weld overlay coatings for erosion control, 810
Hardness test
impact wear of multiplated electrical contacts, 730
Heat dissipation
tribological transitions due to heat dissipation during braking on contaminated rails, 391
Heat exchanger
analysis of a tube–grid oscillatory contact: methodology for the selection of superficial treatments, 826
High speed steel
microstructural variations and tribology of molybdenum-type high speed steel ion implanted with high current density nitrogen beams, 632
High speed steel tools
the effects of machining conditions on the flank wear of TiN-coated high speed steel tool inserts, 901
High temperature
erosion characteristics of alumina ceramics at high temperatures, 178
tribological behavior of silicon nitride materials under unlubricated sliding between 22 °C and 1000 °C, 571
Hip prostheses
the influence of contact stress on the wear of UHMWPE for total replacement hip prostheses, 250
Hot spots
thermal mounding in high speed dry sliders: experiment, theory and comparison, 668
Humidity
the effect of humidity and electrical fields upon the wear of high density polyethylene and polytetrafluoroethylene, 603
Hydraulic fluids
Theoretical and practical aspects of the wear of vane pumps. Part B. Analysis of wear behaviour in the Vickers vane pump test, 868
Hydraulic vane pumps
theoretical and practical aspects of the wear of vane pumps. Part A. Adaptation of a model for predictive wear calculation, 862
Hydrodynamic flows
erosion of surface coatings in hydrodynamic flows, 759
Hydrogel
friction of hydrogel and polyurethane elastic layers when sliding against each other under a mixed lubrication regime, 236

Image analysis
computer image analysis of wear debris for machine condition monitoring and fault diagnosis, 717
Impact wear
impact wear of multiplated electrical contacts, 730
case study of tribology at Tampere University of Technology: percussive rock drilling tube, 840
Inert gas
combined influence of an inert gas environment and a mechanical action on a graphite surface, 687
Insert
wear of Ti–Si–N coated ceramic cutting inserts, 189
Intermetallics
dry sliding wear mechanisms in a $Ti_{50}Ni_{47}Fe_3$ intermetallic alloy, 302
generalized law of erosion: application to various alloys and intermetallics, 500
Intermittent sliding
application of a two-dimensional model of continuous sliding friction to stick–slip, 32
Internal stress
wear transitions in monolithic alumina and zirconia–alumina composites, 156
Ion implantation
microstructural variations and tribology of molybdenum-type high speed steel ion implanted with high current density nitrogen beams, 632
Iron alloys
surface durability of steam treated sintered iron alloys, 334
Iron–chromium alloys
wear–corrosion study of white cast irons, 469
Iron chromium carbides
wear–corrosion study of white cast irons, 469
Iron oxides
fretting of polyimide coatings. Part I: Structure and moisture effects, 94

Joints
friction of hydrogel and polyurethane elastic layers when sliding against each other under a mixed lubrication regime, 236

Laboratory testing
fretting of titanium nitride and diamond-like carbon coatings at high frequencies and low amplitude, 86
Lamellar structure
sliding behavior of Pb–Sn alloys, 290
Laser line hardening
the influence of laser line hardening of carbon steel AISI 1045 on the lubricated wear against steel AISI 52100, 638
Laser scanning confocal microscopy
numerical descriptors for the analysis of wear surfaces using laser scanning confocal microscopy, 771
Laser speckle
temperature fields in sliding contact by a hybrid laser speckle-strain analysis technique, 723
Lubrication
friction of hydrogel and polyurethane elastic layers when sliding against each other under a mixed lubrication regime, 236
lubricating properties of diamond-like coating, 766
IR study of the chemistry of boundary lubrication with high temperature and high pressure shear, 805

Machinability
machinability of a silicon carbide reinforced aluminium metal matrix composite, 883
Machine condition monitoring
computer image analysis of wear debris for machine condition monitoring and fault diagnosis, 717
Magnetic field
influence of a magnetic field on the wear and friction behaviour of a nickel/XC 48 steel couple, 799
Magnetic tapes
microtribology of metal particle, barium ferrite and metal evaporated magnetic tapes, 360
Material pre-selection
utility and limitations of tribosimulation for quality control and material preselection, 350
Material removal
machinability of a silicon carbide reinforced aluminium metal matrix composite, 883
Material response
fretting of titanium nitride and diamond-like carbon coatings at high frequencies and low amplitude, 86
Mathematical model
a mathematical model for sliding wear of metals at elevated temperatures, 20
Mathematical modelling
theoretical and practical aspects of the wear of vane pumps. Part A. Adaptation of a model for predictive wear calculation, 862
Mechanical and structural approaches
the competing wear mechanisms and wear maps for steels, 280
Mechanical seals
acoustic emission in monitoring sliding contact behaviour, 897
MEMS
wear at microscopic scales and light loads for MEMS applications, 426
Metal matrix composites
the effect of alumina fibre reinforcement on the wear of an Al–4.3%Cu alloy, 312
dry sliding wear of particulate-reinforced aluminium alloys against automobile friction materials, 379
machinability of a silicon carbide reinforced aluminium metal matrix composite, 883
Metal–polymer interface
development of an equation for the wear of polymers, 42
Metals
a mathematical model for sliding wear of metals at elevated temperatures, 20
Microindentation
microstructural properties of wear-resistant alloys, 271
Micromachines
an investigation of the experimental conditions and characteristics of a nano-wear test, 777
Microscopic wear
wear at microscopic scales and light loads for MEMS applications, 426
Microscratch
nanoindentation, microscratch, friction and wear studies of coatings for contact recording applications, 743
Microscratching
microstructural properties of wear-resistant alloys, 271
Microstructure
sliding wear behavior and microstructure change of deformation-processed Cu–20vol.%Nb in situ composite, 263
microstructural properties of wear-resistant alloys, 271
sliding behavior of Pb–Sn alloys, 290
a microstructurally based method for stress estimates, 458
microstructural variations and tribology of molybdenum-type high speed steel ion implanted with high current density nitrogen beams, 632

Microtribology
microtribology of metal particle, barium ferrite and metal evaporated magnetic tapes, 360
Mild steel surfaces
self-formation of protective oxide films at dry sliding mild steel surfaces under a medium vacuum, 325
Mining
laboratory assessment of the effect of white layers on wear resistance for digger teeth, 112
MMCs
dry sliding wear of Al alloy 2024–$Al_2O_3$ particle metal matrix composites, 563
Model
generalized law of erosion: application to various alloys and intermetallics, 500
Modulus of elasticity
impact wear of multiplated electrical contacts, 730
Moisture
fretting of polyimide coatings Part I: Structure and moisture effects, 94
Monomers
an exploratory study of vapor-phase lubrication of ceramics by monomers, 581

Nanoindentation
nanoindentation, microscratch, friction and wear studies of coatings for contact recording applications, 743
Nano-wear
an investigation of the experimental conditions and characteristics of a nano-wear test, 777
Nickel
the erosion–corrosion of nickel-base diesel engine exhaust valves, 485
influence of a magnetic field on the wear and friction behaviour of a nickel/XC 48 steel couple, 799
Ni–P brush plating layer
lubricating mechanism of sulfurized olefin on Ni–P brush plating layer, 413
NiTi alloys
cavitation erosion of NiTi explosively welded to steel, 80
Normalized force
the competing wear mechanisms and wear maps for steels, 280
Nozzle
wear of boron carbide ceramics by abrasive waterjets, 148
Nylon
studies of worn surfaces and the transfer film formed in sliding by CuS-filled and carbon fiber-reinforced nylon against a steel surface, 227

Oil additives
effect of oil additives on the performance of a wet friction clutch material, 850
Oil immersed
effect of oil additives on the performance of a wet friction clutch material, 850
Organic films
erosion of surface coatings in hydrodynamic flows, 759
Oxidation
oxidation and its influence on low pressure polyethylene wear, 222

Particle ejection
thermal mounding in high speed dry sliders: experiment, theory and comparison, 668
Particle impact
computer simulation of erosion–corrosion interactions at elevated temperatures, 516
measuring the deformation of crystalline materials due to the impact of eroding particles, 790
Particle velocity
scaling laws for particle velocity in the gas-blast erosion test, 56
Particulate reinforcement
surface topography evolution during sliding wear of 2009 Al–$SiC_p$/17-4 PH, 202
dry sliding wear of particulate-reinforced aluminium alloys against automobile friction materials, 379
Passive film
influence of environmental composition and electrochemical potential on the slurry erosion–corrosion of aluminium, 70
Pb–Sn
sliding behavior of Pb–Sn alloys, 290
PECVD
wear of Ti–Si–N coated ceramic cutting inserts, 189
PEEK
the growth and bonding of transfer film and the role of CuS and PTFE in the tribological behavior of PEEK, 212
on sliding friction and wear of PEEK and its composites, 624
Pendulum gouging tests
dynamical analysis of the wear behaviour of steels during the pendulum single particle gouging wear tests, 371
Penetration equations
methods of measuring wear–corrosion synergism, 476
Performance
effect of oil additives on the performance of a wet friction clutch material, 850
Phase transformation toughening
wear transitions in monolithic alumina and zirconia–alumina composites, 156
Pile reformation tool
tribological analysis and anti-galling design of ocean-floor pile reformation tool, 889
Pinned connections
analysis of fretting conditions in pinned connections, 524
Pin profile
observations on the role of the steel disc counterface during the sliding of various structural ceramics, 544
Plasma spraying
sliding wear of a plasma-sprayed $Al_2O_3$ coating, 417
Plasma treatment
study on tribological behaviour of plasma-treated PEEK and its composites, 613
Plastic deformation
impact wear of multiplated electrical contacts, 730
weld overlay coatings for erosion control, 810
Polarization
erosion–corrosion resistance of tungsten carbide hard metals with different binder compositions, 63
Polarization curves
the cavitation erosion of Fe–Mn–Al alloys, 511
Polyethylene
wear of UHMWPE sliding against untreated, titanium nitride-coated and 'Hardcor'-treated stainless steel counterfaces, 258
Polyethylene wear
oxidation and its influence on low pressure polyethylene wear, 222
Polyimide coatings
fretting of polyimide coatings Part I: Structure and moisture effects, 94
Polymer blend
on sliding friction and wear of PEEK and its composites, 624

Polymers
development of an equation for the wear of polymers, 42
studies of worn surfaces and the transfer film formed in sliding by CuS-filled and carbon fiber-reinforced nylon against a steel surface, 227
friction of hydrogel and polyurethane elastic layers when sliding against each other under a mixed lubrication regime, 236
the influence of contact stress on the wear of UHMWPE for total replacement hip prostheses, 250
the effect of humidity and electrical fields upon the wear of high density polyethylene and polytetrafluoroethylene, 603
study on tribological behaviour of plasma-treated PEEK and its composites, 613
role of reinforcing ceramic particles in the wear behaviour of polymer-based model composites, 833
measurements of real contact areas using PET films (thickness, 0.9 $\mu$m), 844
load, speed and temperature sensitivities of a carbon-fiber-reinforced phenolic friction material, 913
Porosity
fretting behaviour and porosity of $Ti_2N$ coatings, 856
Predictive equations
wear models and predictive equations: their form and content, 443
Profilometry
using profilometry for the quantitative assessment of tribological function: PC-based software for friction and wear prediction, 397
numerical descriptors for the analysis of wear surfaces using laser scanning confocal microscopy, 771
Protective layers
a mathematical model for sliding wear of metals at elevated temperatures, 20
Protective oxide films
self-formation of protective oxide films at dry sliding mild steel surfaces under a medium vacuum, 325
PTFE
on sliding friction and wear of PEEK and its composites, 624

Quality control
utility and limitations of tribosimulation for quality control and material preselection, 350

Rails
predicting the wear of rails on curves from laboratory data, 11
tribological transitions due to heat dissipation during braking on contaminated rails, 391
Railway wheels
tribological transitions due to heat dissipation during braking on contaminated rails, 391
Rock drilling
case study of tribology at Tampere University of Technology: percussive rock drilling tube, 840
Rolls
effects of length, diameter and population density of tribological rolls on friction between self-mated silicon, 784
abrasion resistance of transport roll surfaces, 938
Roll wear
abrasion resistance of transport roll surfaces, 938

Scanning acoustic microscopy
applications of scanning acoustic microscopy in analyzing wear and single-point abrasion damage, 405
Scratching
damage processes in ceramics resulting from diamond tool indentation and scratching in various environments, 551
Scratch test
applications of scanning acoustic microscopy in analyzing wear and single-point abrasion damage, 405
Seizure
mechanism of seizure of aluminium–silicon alloys dry sliding against steel, 658
Service failure
mixed fretting regime, 531
Shear
IR study of the chemistry of boundary lubrication with high temperature and high pressure shear, 805
Short carbon fibre
on sliding friction and wear of PEEK and its composites, 624
Silica
effects of length, diameter and population density of tribological rolls on friction between self-mated silicon, 784
Silicon
mechanism of seizure of aluminium–silicon alloys dry sliding against steel, 658
Silicon carbide
surface topography evolution during sliding wear of 2009 Al–$SiC_p$/17-4 PH, 202
sliding wear behavior of SiC whisker-reinforced aluminum composite, 594
Silicon nitride
tribological behavior of silicon nitride materials under unlubricated sliding between 22 °C and 1000 °C, 571
Silver
amorphous and alloy film formation in sliding of silver on copper, 922
Simulation of wear mechanisms
theoretical and practical aspects of the wear of vane pumps. Part A. Adaptation of a model for predictive wear calculation, 862
Sintering
surface durability of steam treated sintered iron alloys, 334
Sliding
a mathematical model for sliding wear of metals at elevated temperatures, 20
on sliding friction and wear of PEEK and its composites, 624
thermal mounding in high speed dry sliders: experiment, theory and comparison, 668
Sliding contacts
wear of contact elements in electromechanical switches, 691
temperature fields in sliding contact by a hybrid laser speckle-strain analysis technique, 723
acoustic emission in monitoring sliding contact behaviour, 897
Sliding wear
surface topography evolution during sliding wear of 2009 Al–$SiC_p$/17-4 PH, 202
sliding wear behavior and microstructure change of deformation-processed Cu–20vol.%Nb in situ composite, 263
dry sliding wear mechanisms in a $Ti_{50}Ni_{47}Fe_3$ intermetallic alloy, 302
sliding wear of a plasma-sprayed $Al_2O_3$ coating, 417
methods of measuring wear–corrosion synergism, 476
dry sliding wear of Al alloy 2024–$Al_2O_3$ particle metal matrix composites, 563
sliding wear behavior of SiC whisker-reinforced aluminum composite, 594
amorphous and alloy film formation in sliding of silver on copper, 922
Slip amplitude
analysis of fretting conditions in pinned connections, 524
Slippage
laboratory tests for wear of rail and wheel steels, 678

Slurry
erosion–corrosion resistance of tungsten carbide hard metals with different binder compositions, 63
Slurry pump
failure analysis of the impeller of a slurry pump subjected to corrosive wear, 876
Software
using profilometry for the quantitative assessment of tribological function: PC-based software for friction and wear prediction, 397
Solid lubricants
inorganic tribosynthesis of solid lubricants under frictional interaction of refractory metals carbides and chalcogens, 495
Solid particle erosion
weld overlay coatings for erosion control, 810
Spectroscopic study
IR study of the chemistry of boundary lubrication with high temperature and high pressure shear, 805
Speed
observations on the role of the steel disc counterface during the sliding of various structural ceramics, 544
Stability
sliding behavior of Pb–Sn alloys, 290
Start-up friction
application of a two-dimensional model of continuous sliding friction to stick–slip, 32
Steam treatment
surface durability of steam treated sintered iron alloys, 334
Steels
predicting the wear of rails on curves from laboratory data, 11
cavitation erosion of NiTi explosively welded to steel, 80
wear of UHMWPE sliding against untreated, titanium nitride-coated and 'Hardcor'-treated stainless steel counterfaces, 258
dynamical analysis of the wear behaviour of steels during the pendulum single particle gouging wear tests, 371
generalized law of erosion: application to various alloys and intermetallics, 500
the influence of laser line hardening of carbon steel AISI 1045 on the lubricated wear against steel AISI 52100, 638
influence of a magnetic field on the wear and friction behaviour of a nickel/XC 48 steel couple, 799
Stick–slip
application of a two-dimensional model of continuous sliding friction to stick–slip, 32
Strain
temperature fields in sliding contact by a hybrid laser speckle-strain analysis technique, 723
Strain accumulation
wear mechanisms of UHMWPE in total joint replacements, 241
Strain rate response
the role of strain rate response in plane strain abrasion of metals, 648
Stress
the implementation of tribological principles in an expert-system ("PRECEPT") for the selection of metallic materials, surface treatments and coatings in engineering design, 1
a microstructurally based method for stress estimates, 458
Structure
structure-based selection of wear-resistant materials, 50
Subsurface damage
applications of scanning acoustic microscopy in analyzing wear and single-point abrasion damage, 405
Sulfurized olefin
lubricating mechanism of sulfurized olefin on Ni–P brush plating layer, 413
Surface alloying
friction and wear reduction of $Al_2O_3$ ceramics by laser-induced surface alloying, 118
Surface analysis
numerical descriptors for the analysis of wear surfaces using laser scanning confocal microscopy, 771
Surface durability
surface durability of steam treated sintered iron alloys, 334
Surface layers
structure-based selection of wear-resistant materials, 50
a microstructurally based method for stress estimates, 458
Surface reactivity
combined influence of an inert gas environment and a mechanical action on a graphite surface, 687
Surface roughness
theoretical and practical aspects of the wear of vane pumps. Part A. Adaptation of a model for predictive wear calculation, 862
Surfaces
surface topography evolution during sliding wear of 2009 Al–$SiC_p$/17-4 PH, 202
measuring the deformation of crystalline materials due to the impact of eroding particles, 790
Surface treatments
the implementation of tribological principles in an expert-system ("PRECEPT") for the selection of metallic materials, surface treatments and coatings in engineering design, 1
the influence of laser line hardening of carbon steel AISI 1045 on the lubricated wear against steel AISI 52100, 638
abrasion resistance of transport roll surfaces, 938
Surface wear
an integrated approach to the characterization of surface wear I: Qualitative characterization, 700
Switches
wear of contact elements in electromechanical switches, 691
Synergism
wear–corrosion study of white cast irons, 469
methods of measuring wear–corrosion synergism, 476

Tangential impact
sliding wear of a plasma-sprayed $Al_2O_3$ coating, 417
Taylor equation
machinability of a silicon carbide reinforced aluminium metal matrix composite, 883
Temperature
temperature fields in sliding contact by a hybrid laser speckle-strain analysis technique, 723
Thermal gradient
observations on the role of the steel disc counterface during the sliding of various structural ceramics, 544
Thermal mounding
thermal mounding in high speed dry sliders: experiment, theory and comparison, 668
Thermal spray coatings
abrasion resistance of transport roll surfaces, 938
Thermoelastic instability
thermal mounding in high speed dry sliders: experiment, theory and comparison, 668
Thermomechanical treatment
dry sliding wear mechanisms in a $Ti_{50}Ni_{47}Fe_3$ intermetallic alloy, 302
Thermoplastic composite
on sliding friction and wear of PEEK and its composites, 624
Thread joint
case study of tribology at Tampere University of Technology: percussive rock drilling tube, 840

TiN coatings
wear of UHMWPE sliding against untreated, titanium nitride-coated and 'Hardcor'-treated stainless steel counterfaces, 258
the effects of machining conditions on the flank wear of TiN-coated high speed steel tool inserts, 901
Ti–Ni alloys
dry sliding wear mechanisms in a $Ti_{50}Ni_{47}Fe_3$ intermetallic alloy, 302
Ti–Si–N
wear of Ti–Si–N coated ceramic cutting inserts, 189
Titanium
the role of strain rate response in plane strain abrasion of metals, 648
Titanium nitride
fretting behaviour and porosity of $Ti_2N$ coatings, 856
T-maps
tribological behavior of silicon nitride materials under unlubricated sliding between 22 °C and 1000 °C, 571
Tools
damage processes in ceramics resulting from diamond tool indentation and scratching in various environments, 551
Tool wear
machinability of a silicon carbide reinforced aluminium metal matrix composite, 883
Topography
surface topography evolution during sliding wear of 2009 Al–$SiC_p$/17-4 PH, 202
an integrated approach to the characterization of surface wear I: Qualitative characterization, 700
Total joint replacements
wear mechanisms of UHMWPE in total joint replacements, 241
Toughness
effect of grain boundary dopants and mean grain size on tribomechanical behavior of highly purified $\alpha$-alumina in the mild wear regime, 165
weld overlay coatings for erosion control, 810
Transfer film
the growth and bonding of transfer film and the role of CuS and PTFE in the tribological behavior of PEEK, 212
studies of worn surfaces and the transfer film formed in sliding by CuS-filled and carbon fiber-reinforced nylon against a steel surface, 227
Transition regions
the competing wear mechanisms and wear maps for steels, 280
Transmission electron microscopy
the effect of alumina fibre reinforcement on the wear of an Al–4.3%Cu alloy, 312
Transport rolls
abrasion resistance of transport roll surfaces, 938
Tribochemical layer
observations on the role of the steel disc counterface during the sliding of various structural ceramics, 544
Tribochemistry
an exploratory study of vapor-phase lubrication of ceramics by monomers, 581
Tribolayers
dry sliding wear mechanisms in a $Ti_{50}Ni_{47}Fe_3$ intermetallic alloy, 302
Tribological analysis
tribological analysis and anti-galling design of ocean-floor pile reformation tool, 889
Tribological behaviour
study on tribological behaviour of plasma-treated PEEK and its composites, 613
Tribological function
using profilometry for the quantitative assessment of tribological function: PC-based software for friction and wear prediction, 397
Tribology
the implementation of tribological principles in an expert-system ("PRECEPT") for the selection of metallic materials, surface treatments and coatings in engineering design, 1
application of a two-dimensional model of continuous sliding friction to stick–slip, 32
tribological behavior of silicon nitride materials under unlubricated sliding between 22 °C and 1000 °C, 571
microstructural variations and tribology of molybdenum-type high speed steel ion implanted with high current density nitrogen beams, 632
lubricating properties of diamond-like coating, 766
Tribopolymerization
mechanism of wear reduction of alumina by tribopolymerization, 138
an exploratory study of vapor-phase lubrication of ceramics by monomers, 581
Tribosimulation
utility and limitations of tribosimulation for quality control and material preselection, 350
Tribosynthesis
inorganic tribosynthesis of solid lubricants under frictional interaction of refractory metals carbides and chalcogens, 495
Tube vibration
analysis of a tube–grid oscillatory contact: methodology for the selection of superficial treatments, 826
Tungsten carbide
erosion–corrosion resistance of tungsten carbide hard metals with different binder compositions, 63
Twin boundary
the cavitation erosion of Fe–Mn–Al alloys, 511

UHMWPE
wear mechanisms of UHMWPE in total joint replacements, 241
the influence of contact stress on the wear of UHMWPE for total replacement hip prostheses, 250
Ultrasonic inspection
applications of scanning acoustic microscopy in analyzing wear and single-point abrasion damage, 405
Ultra-thin films
an investigation of the experimental conditions and characteristics of a nano-wear test, 777

Vacuum
self-formation of protective oxide films at dry sliding mild steel surfaces under a medium vacuum, 325
Vane pumps
theoretical and practical aspects of the wear of vane pumps. Part B. Analysis of wear behaviour in the Vickers vane pump test, 868
Vapor phase lubrication
an exploratory study of vapor-phase lubrication of ceramics by monomers, 581
Vickers vane pump test
theoretical and practical aspects of the wear of vane pumps. Part B. Analysis of wear behaviour in the Vickers vane pump test, 868

Waterjet
wear of boron carbide ceramics by abrasive waterjets, 148

Wear
wear of boron carbide ceramics by abrasive waterjets, 148
wear transitions in monolithic alumina and zirconia–alumina composites, 156
the growth and bonding of transfer film and the role of CuS and PTFE in the tribological behavior of PEEK, 212
the influence of contact stress on the wear of UHMWPE for total replacement hip prostheses, 250
the effect of alumina fibre reinforcement on the wear of an Al–4.3%Cu alloy, 312
applications of scanning acoustic microscopy in analyzing wear and single-point abrasion damage, 405
generalized law of erosion: application to various alloys and intermetallics, 500
temperature fields in sliding contact by a hybrid laser speckle-strain analysis technique, 723
influence of a magnetic field on the wear and friction behaviour of a nickel/XC 48 steel couple, 799
Wear behaviour
the influence of laser line hardening of carbon steel AISI 1045 on the lubricated wear against steel AISI 52100, 638
Wear–corrosion
wear–corrosion study of white cast irons, 469
methods of measuring wear–corrosion synergism, 476
Wear debris
a mathematical model for sliding wear of metals at elevated temperatures, 20
computer image analysis of wear debris for machine condition monitoring and fault diagnosis, 717
Wear fragments
combined influence of an inert gas environment and a mechanical action on a graphite surface, 687
Wear maps
tribological behavior of silicon nitride materials under unlubricated sliding between 22 °C and 1000 °C, 571
the effects of machining conditions on the flank wear of TiN-coated high speed steel tool inserts, 901
Wear mechanisms
dry sliding wear mechanisms in a $Ti_{50}Ni_{47}Fe_3$ intermetallic alloy, 302
Wear models
development of an equation for the wear of polymers, 42
wear models and predictive equations: their form and content, 443
Wear prediction
predicting the wear of rails on curves from laboratory data, 11
using profilometry for the quantitative assessment of tribological function: PC-based software for friction and wear prediction, 397
theoretical and practical aspects of the wear of vane pumps. Part B. Analysis of wear behaviour in the Vickers vane pump test, 868
Wear rate
laboratory tests for wear of rail and wheel steels, 678
Wear reduction
friction and wear reduction of $Al_2O_3$ ceramics by laser-induced surface alloying, 118
mechanism of wear reduction of alumina by tribopolymerization, 138
Wear resistance
structure-based selection of wear-resistant materials, 50
laboratory assessment of the effect of white layers on wear resistance for digger teeth, 112
Wear surfaces
numerical descriptors for the analysis of wear surfaces using laser scanning confocal microscopy, 771
Wear testing devices
theoretical and practical aspects of the wear of vane pumps. Part A. Adaptation of a model for predictive wear calculation, 862
Wear transitions
wear transitions in monolithic alumina and zirconia–alumina composites, 156
dry sliding wear mechanisms in a $Ti_{50}Ni_{47}Fe_3$ intermetallic alloy, 302
Weld overlay coating
weld overlay coatings for erosion control, 810
Wheel rail steels
laboratory tests for wear of rail and wheel steels, 678
Whiskers
sliding wear behavior of SiC whisker-reinforced aluminum composite, 594
White cast irons
wear–corrosion study of white cast irons, 469
White layers
laboratory assessment of the effect of white layers on wear resistance for digger teeth, 112
Work hardening
weld overlay coatings for erosion control, 810
Work-softening
sliding behavior of Pb–Sn alloys, 290

$ZrO_2$–$Al_2O_3$ composite
wear transitions in monolithic alumina and zirconia–alumina composites, 156